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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/111,482    07/08/98    KIGUCHI

H    101111

EXAMINER

IM52/1101

OLIFF AND BERRIDGE  
P O BOX 19928  
ALEXANDRIA VA 22320

YAMNITZKY, M

ART UNIT

PAPER NUMBER

1774

DATE MAILED:

11/01/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/111,482

Applicant(s)  
Hiroshi KIGUCHI et al.

Examiner  
M. Yamnitzky

Art Unit  
1774



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on Aug 21, 2001

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 1, 2, 4-14, and 16-31 is/are pending in the application.

4a) Of the above, claim(s) 18-31 is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1, 2, 4-14, 16, and 17 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some\* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

20) ☐ Other:

Art Unit: 1774

1. This Office action is in response to applicants' amendment received 08/21/01 which amends claims 1, 6 and 29.

Claims 1, 2, 4-14 and 16-31 are pending.

2. Claims 18-31 stand withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention, the requirement having been traversed telephonically and in Paper No. 12.

Upon allowance of a product claim, withdrawn process claims will be rejoined provided the conditions for rejoinder are met. See MPEP 821.04. In the present case, if any one of the product claims was found to be allowable, none of the withdrawn process claims would meet the conditions for rejoinder. In order to be considered for potential rejoinder, the examiner suggests that lines 3-5 of claim 18 be amended to read as follows: --coating a pattern by discharging the composition of claim 1 from a head by an ink-jet method; and--.

3. Claims 1, 2, 4-14, 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Proper antecedent basis is lacking for "the precursor polymer" as recited at the end of claim 1. While the precursor is initially set forth as a precursor of a polymer compound, the precursor itself is not set forth as a polymer. This rejection could be overcome by either deleting

Art Unit: 1774

<sup>Polymers</sup>  
[precursor] from the last line of claim 1, or inserting --polymer-- after "precursor" in line 3 of claim 1. The latter change is supported by the specification which shows the precursor as a polymer (e.g. see the reaction scheme shown on page 7).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1, 2, 4-12, 16 and 17 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 98/24271.

This reference is available as prior art because it was published prior to the U.S. filing date of the present application and, while having some inventors in common with the present application, does not have the same inventive entity as the present application.

Applicants cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The reference discloses compositions for an organic EL element, the compositions comprising a precursor of conjugated organic polymer precursor and a fluorescent dye. The compositions can be used in an ink-jet method.

Art Unit: 1774

One specific composition disclosed by the reference comprises a precursor of polyparaphenylene vinylene (PPV) and the fluorescent dye Rhodamine B which inherently does not have a substituent that attaches to the precursor. This composition has a viscosity of 3.80 and a surface tension of 33.1 dyne/cm, and meets all the limitations of claims 1, 2, 4-7, 16 and 17.

Another specific composition disclosed by the reference comprises a precursor of PPV and the fluorescent dye distyrylbiphenyl which inherently does not have a substituent that attaches to the precursor. This composition has a viscosity of 3.91 and a surface tension of 33.2 dyne/cm, and meets all the limitations of claims 1, 2, 4-6, 8, 16 and 17.

The fluorescent dyes required by claims 9-11 are also disclosed in the reference as suitable for the composition. The reference also teaches that the dyes are soluble to aqueous solutions, and that PPV or its derivative is soluble to water, which implies that a polar solvent (i.e. water) is suitable for the composition as required by claim 12.

(In determining what is disclosed by the reference, which is not published in the English language, the examiner relies on Pub. No. US 2001/0001050 as being a translation of the reference. The US publication is related to the international application published as WO 98/24271. In the US publication, see paragraphs 0069-0071, 0076-0082, 0098-0099, 0175-0178, and Tables 1 and 2 with reference to Example 5.)

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1774

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/24271 as applied to claims 1, 2, 4-12, 16 and 17 above, and for the further reasons set forth below.

The reference does not disclose the amount of the fluorescent dye relative to a solid component of the precursor and thus does not anticipate claim 13. It would have been within the level of ordinary skill of a worker in the art at the time of the invention to determine suitable and optimum amounts of fluorescent dye to be used in combination with the precursor. One of ordinary skill in the art would have been motivated to use a sufficient amount of fluorescent dye to achieve the desired results.

The reference does not explicitly disclose the use of a wetting agent in the composition and thus does not anticipate claim 14. However, a wetting agent is a conventional additive for ink-jet inks. It would have been an obvious modification to one of ordinary skill in the art at the time of the invention to include conventional ink-jet ink additives, such as a wetting agent, for their known benefits.

8. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (703) 308-4413. The examiner can generally be reached at this number from 6:45 a.m. to 3:15 p.m. Monday-Friday.

Art Unit: 1774

The current fax numbers for Art Unit 1774 are (703) 305-3599 for official after final faxes and (703) 305-5408 for all other official faxes. (Unofficial faxes for Art Unit 1774 can be sent to (703) 305-5436.)

MRY  
11/01/01



MARIE YAMNITZKY  
PRIMARY EXAMINER

1774